

## CLAIMS

What is claimed is:

- 1 1. A method comprising:  
2 storing native code associated with a first method within a native code space;  
3 determining whether said native code space exceeds a threshold in response to an  
4 invocation of a second method; and  
5 reclaiming said native code associated with said first method and compiling byte code  
6 into native code associated with said second method in response to said determination.
- 1 2. The method as set forth in claim 2, wherein reclaiming said native code associated  
2 with said first method and compiling byte code into native code associated with said second  
3 method in response to said determination comprises reclaiming said native code associated  
4 with said first method in response to a determination that said native code space exceeds said  
5 threshold.
- 1 3. The method as set forth in claim 2, further comprising storing said native code  
2 associated with said second method within said native code space in response to said  
3 compilation.
- 1 4. The method as set forth in claim 2, further comprising:  
2 invoking said first method following said reclamation; and

3 re-compiling byte code into said native code associated with said first method in  
4 response to said invocation of said first method.

1 5. The method as set forth in claim 2, wherein reclaiming said native code associated  
2 with said first method and compiling byte code into native code associated with said second  
3 method in response to said determination comprises compiling byte code into native code  
4 associated with said second method utilizing a JAVA virtual machine.

1 6. The method as set forth in claim 5, wherein compiling byte code into native code  
2 associated with said second method utilizing a JAVA virtual machine comprises compiling  
3 byte code into native code associated with said second method utilizing a just-in-time  
4 compiler.

1 7. The method as set forth in claim 2, wherein reclaiming said native code associated  
2 with said first method and compiling byte code into native code associated with said second  
3 method in response to said determination comprises:  
4 determining whether said first method is active or inactive; and  
5 reclaiming said native code associated with said first method in response to a  
6 determination that said first method is inactive.

1 8. The method as set forth in claim 7, wherein:  
2 reclaiming said native code associated with said first method and compiling byte code  
3 into native code associated with said second method in response to said determination further

4 comprises determining whether said first method is hot or cold in response to a determination  
5 that said first method is inactive, and  
6 reclaiming said native code associated with said first method in response to a  
7 determination that said first method is inactive comprises reclaiming said native code  
8 associated with said first method in response to a determination that said first method is cold.

1 ~~9.~~ A data processing system-readable medium having a plurality of instructions  
2 executable by a data processing system embodied therein, wherein said plurality of  
3 instructions when executed cause said data processing system to perform operations  
4 comprising:  
5 storing native code associated with a first method within a native code space;  
6 determining whether said native code space exceeds a threshold in response to an  
7 invocation of a second method; and  
8 reclaiming said native code associated with said first method and compiling byte code  
9 into native code associated with said second method in response to said determination.

1 10. The data processing system-readable medium of claim 9, wherein reclaiming said  
2 native code associated with said first method and compiling byte code into native code  
3 associated with said second method in response to said determination comprises reclaiming  
4 said native code associated with said first method in response to a determination that said  
5 native code space exceeds said threshold.

1 11. The data processing system-readable medium of claim 9, wherein said plurality of  
2 instructions when executed further cause said data processing system to perform operations

3 comprising storing said native code associated with said second method within said native  
4 code space in response to said compilation.

1 12. The data processing system-readable medium of claim 9, wherein said plurality of  
2 instructions when executed further cause said data processing system to perform operations  
3 comprising invoking said first method following said reclamation; and re-compiling byte  
4 code into said native code associated with said first method in response to said invocation of  
5 said first method.

1 13. The data processing system-readable medium of claim 9, wherein reclaiming said  
2 native code associated with said first method and compiling byte code into native code  
3 associated with said second method in response to said determination comprises compiling  
4 byte code into native code associated with said second method utilizing a JAVA virtual  
5 machine.

1 14. The data processing system-readable medium of claim 13, wherein compiling byte  
2 code into native code associated with said second method utilizing a JAVA virtual machine  
3 comprises compiling byte code into native code associated with said second method utilizing  
4 a just-in-time compiler.

1 15. The data processing system-readable medium of claim 9, wherein reclaiming said  
2 native code associated with said first method and compiling byte code into native code  
3 associated with said second method in response to said determination comprises:  
4 determining whether said first method is active or inactive; and

5        reclaiming said native code associated with said first method in response to a  
6        determination that said first method is inactive.

1     16.     The data processing system-readable medium of claim 15, wherein:

2        reclaiming said native code associated with said first method and compiling byte code  
3        into native code associated with said second method in response to said determination further  
4        comprises determining whether said first method is hot or cold, and

5       reclaiming said native code associated with said first method in response to a  
6       determination that said first method is inactive comprises reclaiming said native code  
7       associated with said first method in response to a determination that said first method is cold.

1 ~~17.~~ A data processing system comprising:

2 a processor to process data and execute instructions;

3           a memory to store data including a plurality of instructions which when executed by  
4   said processor cause said data processing system to perform operations comprising:

5 storing native code associated with a first method within a native code space of said  
6 memory;

7       determining whether said native code space exceeds a threshold in response to an  
8       invocation of a second method; and

9            reclaiming said native code associated with said first method and compiling byte code  
10        into native code associated with said second method in response to said determination.

1 18. The data processing system of claim 17, wherein reclaiming said native code

2 associated with said first method and compiling byte code into native code associated with

3 said second method in response to said determination comprises reclaiming said native code  
4 associated with said first method in response to a determination that said native code space  
5 exceeds said threshold.

1 19. The data processing system of claim 17, wherein said plurality of instructions when  
2 executed further cause said data processing system to perform operations comprising storing  
3 said native code associated with said second method within said native code space in  
4 response to said compilation.

1 20. The data processing system of claim 17, wherein said plurality of instructions when  
2 executed further cause said data processing system to perform operations comprising  
3 invoking said first method following said reclamation; and re-compiling byte code into said  
4 native code associated with said first method in response to said invocation of said first  
5 method.

1 21. The data processing system of claim 17, wherein reclaiming said native code  
2 associated with said first method and compiling byte code into native code associated with  
3 said second method in response to said determination comprises compiling byte code into  
4 native code associated with said second method utilizing a JAVA virtual machine.

1 22. The data processing system of claim 21, wherein compiling byte code into native  
2 code associated with said second method utilizing a JAVA virtual machine comprises  
3 compiling byte code into native code associated with said second method utilizing a just-in-  
4 time compiler.

1 23. The data processing system of claim 17, wherein reclaiming said native code  
2 associated with said first method and compiling byte code into native code associated with  
3 said second method in response to said determination comprises:  
4 determining whether said first method is active or inactive; and  
5 reclaiming said native code associated with said first method in response to a  
6 determination that said first method is inactive.

1 24. The data processing system of claim 23, wherein:  
2 reclaiming said native code associated with said first method and compiling byte code  
3 into native code associated with said second method in response to said determination further  
4 comprises determining whether said first method is hot or cold, and  
5 reclaiming said native code associated with said first method in response to a  
6 determination that said first method is inactive comprises reclaiming said native code  
7 associated with said first method in response to a determination that said first method is cold.